

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/00119

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C23D 17/00

US CL : 134/38

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 510/201

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EAST-USPATFULL JAPIO DERWENT CAS-REGISTRY IBMTDB PGPUB CAPLUS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3.553,144 A (MURPHY) 05 January 1971, col. 1, lines 15-20, col. 2, lines 43-44, col. 3, lines 30-40, col. 3, lines 60-65, col. 4, lines 70-72, col. 5, lines 65-68.	1-3, 5-10, 21-22, 24-27 -----
Y	col. 1, lines 35-40, col. 2, lines 40-45, col. 3, lines 60-65, col. 4, lines 3-5, 59-60, and 70-75.	11-20, 28-29, 32-34
X	US 5.006.279 A (GROBBEL et al) 09 April 1991, col. 3, lines 30-35, col. 4, lines 33-35 and lines 5-10, col. 5, lines 29-40 and lines 18-20, col. 6, lines 65-68, col. 7, lines 1-28, col. 12, line 16.	1-11, 14-19, 21-28, 31-33 -----
Y	col. 5, lines 30-40.	30



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents	"P" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published before or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubt on priority claims, or which is cited to establish the publication date of another citation or other special reason, as specified	"N" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claim	

Date of the actual completion of the international search

29 MARCH 2002

Date of mailing of the international search report

29 MAY 2002

Name and mailing address of the ISA-US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Authorized officer

SHARIDAN CARRILLO

DEBORAH OWAS  
PARALEGAL SPECIALIST

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US02/00119

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2.951.043 A (BLANK) 30 August 1960, col. 8, lines 20-32.	1, 11, 18, 21, 28, 32